

#48, 80

RESULT 7

AAR40841

ID AAR40841 standard; Protein; 3054 AA.

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AC AAR40841;

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DT 02-MAR-1994 (first entry)

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DE Translation of TEV large ORF.

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KW Tobacco Etch Virus; TEV; large nuclear inclusion protein;

KW capsid protein; vector; transformation; Agrobacterium tumefaciens;

KW potyvirus.

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OS Tobacco etch virus.

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FH Key Location/Qualifiers

FT Protein 2791..3054

FT /note= "TEV coat protein"

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PN WO9317098-A.

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PD 02-SEP-1993.

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PF 18-FEB-1993; 93WO-US01544.

XX

PR 19-FEB-1992; 92US-0838509.

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PA (UYOR-) UNIV OREGON HEALTH SCI.

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PI Dougherty WG, Lindbo JA;

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DR WPI; 1993-288404/36.

DR N-PSDB; AAQ47788.

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PT Plant transformation vector - comprising Tobacco Etch

PT Virus-derived mutated gene, conferring viral resistance to e.g.

PT tobacco plants infected with poty-viruses

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PS Disclosure; Fig 1; 68pp; English.

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CC This sequence is encoded by the largest ORF in the third reading
CC frame of the Tobacco Etch Virus (TEV). This protein may be cleaved
CC to give the large (54 kD) nuclear inclusion protein and the capsid
CC protein. The DNA encoding this protein was used as a basis in the
CC construction of a vector suitable for transformation into Agrobacterium
CC tumefaciens (AT) cells. The vector constructs of the invention (see
CC also AAQ55665-67) encode a full length coat protein and a truncated coat
CC protein (see AAR45612-13). The resultant transformed AT cells may
CC be used to transform cultured tobacco cells. The transformed cells
CC had reduced susceptibility to viral infection, ie. they were resistant
CC to potyvirus infection.

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SQ Sequence 3054 AA;

Query Match 47.6%; Score 1085.5; DB 14; Length 3054;

Best Local Similarity 49.3%; Pred. No. 5.3e-103;

Matches 212; Conservative 76; Mismatches 137; Indels 5; Gaps 4;

Qy 1 GKSKRTRQKLKFRRAARDMKDRYEVHADEGTLVENFGTRYSKKGKTKGTVVGLGAKTRRFT 60
|| | : ||| | | : : ||| | : | ||: | : ||| ||| | : ||| : | :
Db 1850 GK-KNQKHKLKMREARGARGQYEVAAEPEALEHYFGSAYNNKGKRKGTTTRGMGAKSRKFI 1908

Qy 61 NMYGFDPTSEYFARYLDPITGATLDETPIHNVNLVAEHFGDIRLDMVDKELLDKQHLYLK 120
||||||| : : | : : ||| | : ||: : || : | | : : : | |
Db 1909 NMYGFDPTDFSYIRFVDPLTGHTIDESTNAPIDLQHEFGKVRTRMLIDDEIEPQSLSTH 1968

Qy 121 RPIECYFVKDAGQKVMRIDLTPHNPLLASDVSTTIMGYPEREGELRQTGKARLVDPSELP 180
| | | : || : : |||| : | ||: | | ||| : ||| | |||| | | : ||
Db 1969 TTIHAYLVNSGTKKVLKVDLTPHSSLRASEKSTAIMGFPERENELRQTGMVAVPAYDQLP 2028

Qy 181 ARNEDIDAEFESLNRISGLRDYNPISQNVCLLTNESEGHREKMFYGIGYSVIITNQHLFR 240
: ||| : | ||| | ||||| : | |||| : || : ||| : | |||| : |||
Db 2029 PKNEDLTFEGESL--FKGPRDYNPISSTICHLTNESDGHSTSLYGIGFGPFIITNKHLFR 2086

Qy 241 RNNGELSIQSKHGYFRCRNTTSLKMLPLEGHDILLIQLPRDFPVFPQKIRFREPRVDDKI 300
|||| | : || | | : : ||| : : : || | : : ||| : ||| : ||| : : : |
Db 2087 RNNGTLLVQSLHGVFKVKNTTTLQQLIDGRDMIIRMPKDFPPFPQKLKFREPQREERI 2146

Qy 301 VLVSTNFQEKSSSSTVSESSNISRVQSANFYKHWISTVAGHCGNPMVSTKDGFIIVGIHSL 360
|| : ||| | | | || : | | : ||| | | | || : ||| : ||||| |||||
Db 2147 CLVTTNFQTKSMSSMVSDTSCTFPSSDGIFWKHWIQTGQCGSPLVSTRDGFIVGIHSA 2206

Qy 361 ASLTGVDNIFTSFPPQFENKYLQKLSEHTWCSGWKLNLGKISWGGINIVEDAPEEPFITS 420
: : | | ||| | | : | | ||| : | : ||| : |||||
Db 2207 SNFTNTNNYFTSVPKNF-MELLTNQEAQQVWSGWRLNADSVLWGGHKVFMSKPEEPFQPV 2265

Qy 421 KMAS-LLSDL 429
| | : | : : |
Db 2266 KEATQLMNEL 2275